

# Advisory solutions for the power sector

energypeople

energypeople

# Power engineering solutions and beyond.

The energypeople team has over 500 years of experience of planning, designing, building, operating and maintaining electricity plant, transmission and distribution networks.



### About us

www.energypeople.co.uk

### What we do

We're engineers, managers and consultants with 'hands on' experience of planning, building, operating and maintaining power businesses. We advise owners, investors and regulators operating in a broad spectrum of market frameworks, regulatory environments and patterns of ownership.

Working alongside and gaining synergies from our design house, we specialise in the study and design of power networks.

### Who we are

At energypeople, we are an employee-owned independent energy sector consultancy based in the United Kingdom. We have been operating in the energy industry since 1979.

The strength of our company lies in our people; their training, qualifications and extensive experience both in the UK and the international energy sector. The energypeople team was founded by electricity supply industry professionals and now boasts over 500 years of experience of the safe and efficient planning, designing, building, operating and maintaining electricity plant, transmission and distribution networks.

### **Our international experience**

Our specialist engineers have diverse experience of designing and delivering power engineering solutions. Our more senior people have managed power businesses and worked as consultants, with actual and potential investors, governments and regulatory authorities on the review and evaluation of generation, transmission and distribution businesses. Our team of designers has worked on a broad range of technical assignments, on networks up to and including 400kV.

# Our power engineering capability

Our team has experience in a variety of generation, transmission and distribution projects. Our capability in advising electricity businesses is 'end to end', from taking energy from generation (technical advisers to a government agency procuring new capacity), transmission (price control audit and performance assessment) to distribution (due diligence on assets), billing, collection and customer services (audit of customer service standards).

# Our utility management experience

Our expansive engineering knowledge is matched by an understanding of the importance of providing customers with a reliable, affordable and available electricity supply that is billed in an accurate and timely manner, and where payment can be made simply, quickly and efficiently.

In advising utilities, we recognise that customer expectations are rising as economies mature, that in the future the success of an electricity utility will increasingly be judged by its responsiveness to customers' needs and, when problems arise, that the 'physical' fault is rapidly addressed and customers' complaints are dealt with in a sensitive, appropriate manner.

### Our expertise in regulation

We have worked for regulatory authorities and companies in a number of countries and have a thorough understanding of a broad range of regulatory regimes, market set ups and patterns of ownership.

### Our services

### Asset management and investment appraisal

We will review your existing asset management procedures. This includes identifying assets, developing policies on asset boundaries, devising asset sharing arrangements, valuing assets, estimating the stage of assets' lifecycles, decommissioning and disposal, defining objectives and formulating strategies, undertaking risk reviews, contingency planning, and preparing schedules and related documentation for resilient management and maintenance of both your physical and intangible assets.

As part of this process, we appraise investment opportunities, whether it's acquiring assets, diverting assets or seeking external investment for sustainability of existing assets. Recommendations will include calculating ensuing operational improvements and conducting due diligence to ensure asset investment is both technically sound and economically justifiable.

### **Regulatory compliance and incentives**

We will assess your compliance with the regulatory framework(s), reviewing whether regulations and associated codes and instructions are sufficiently well understood by your employees and agents.

We can ensure procedures and codes of practice are in place which govern the discharge of your obligations, enabling the performance of service providers to be assessed, analysing and certifying the accuracy of data submitted to regulatory authorities and presenting findings to stakeholders.

We also analyse and value regulatory incentives that can be achieved by investing in energy infrastructure projects for which we've confirmed the net positive impact by cost benefit study. By better understanding your incentive possibilities, you can make informed decisions about investing in the network.

www.energypeople.co.uk



Network design, performance enhancement and system loss reduction

Through our design team we plan, design, model and specify transmission and distribution network installations and expansions, and can ensure they are delivered to the highest standards of safety, quality, environmental sensitivity and affordability.

Our team of designers has worked on a broad range of design assignments, mainly in the UK, on networks up to and including 132kV and on primary and FEED designs of projects up to and including 400kV. We hold full accreditation under the National Electricity Registration Scheme (NERS) for the design of electrical networks.

We carry out performance studies to determine current status and record potential improvements to performance parameters, such as voltage stability and voltage profile, by introducing prescribed changes to the network. Integral to this task is evaluating interruptions, duration and likely cause in order to highlight trends and offer solutions to minimise power losses.

### Power system analysis and technical audits

We execute detailed electrical power system studies tailored to your needs, project scope and size, ranging from fault level and load flow to protection grading and transient stability. We utilise the latest industry-recognised software for advanced modelling and analysis of networks from LV up to and including 132kV.

Technical audits are another facet of our advisory services whereby we evaluate power sector organisations to ensure operating activities are being managed and performed properly, and that control mechanisms are in place to sufficiently mitigate risk. This work can be carried out under fixed contracts or terms of framework type arrangements.







# Benchmarking and business process improvement

We offer business planning support to help future-proof your company. This includes performance measuring and target setting based on industry benchmarks such as unit cost levels, safety outcomes, reliability indexes and productivity trends. We agree appropriate goals for your business based on actionable intelligence.

Integral to any benchmarking exercise is undertaking a wider review of your organisational set up, looking at everything from customer service delivery and health and safety to technological developments and workforce requirements, so that processes can be re-engineered to enable greater efficiencies. Our purpose is to deliver innovative engineering, management and technical solutions to public, private and donor organisations in the power sector.



### Our experience

### Workforce study

Helping a distribution and supply company prepare for an uncertain future

Faced with the continued growth in demand for electricity, a changing regulatory framework involving 'unbundling' and tougher price controls, a likely change in ownership, together with worries about succession issues and low productivity, energypeople was asked to carry out a workforce study. Using existing and additional data, demand and supply factors were reviewed, both internal and external.

The outputs from the study were presented to various internal stakeholders. These included an executive steering group set up to oversee the study and the board of directors. We presented results in more detail to a human resources committee of the main board, the leadership team in each business unit and headquarters function. The final report included a workforce planning model and recommended action plan.

#### www.energypeople.co.uk

#### **Performance review**

How did distribution network operators respond to disruption of the electricity network caused by adverse weather?

Over the Christmas period in 2013 and the days immediately prior to the New Year, severe storms with high winds and torrential rain caused widespread damage to electricity networks throughout the UK, and made repair and restoration difficult.

There was disquiet among some badly affected customers and the media with the rate at which supplies were restored. In the spring of 2014, energypeople was commissioned by the regulatory authority, Ofgem, to review the performance of the electricity distribution network operators (DNOs).

This project involved: developing a methodology; review and analysis of the events and how they were managed; iteration of the issues uncovered with Ofgem, the companies and other stakeholders; presentation of the results in the form of an overview report and commentary on the performance of each DNO in a series of appendices. Our work provided an independent assessment and was used to inform discussions between Ofgem and the companies on, among other things, performance expectations and compensation. The outputs are available to view on the Ofgem website at these locations:

www.ofgem.gov.uk/ofgem-publications/88913/ energypeoplestage2stormreviewreportfinal.pdf

www.ofgem.gov.uk/ofgem-publications/88914/ energypeoplestage2stormreviewreportappendicesv1.0.pdf



## Pre-distribution price review audit

### Audit of distribution and supply companies in preparation for a price control review

This project involved a comprehensive price control audit of the five licensed distribution companies (for the period ending 2017) including: a thorough cost evaluation; review of project development efficiency; detailed scrutiny of operation and maintenance contracts; study into the use of consultants; review of training effectiveness; and assessment of asset management practice.

### Feasibility study

### Becoming an independent UK distribution network operator

Phase 1: We conducted a feasibility study on behalf of a UK company on whether to become an independent distribution network operator (IDNO); managing, operating and maintaining a distribution network and receiving use of system income for so doing. This involved a review of the licence application process; recommendations on meeting regulatory standards and performance targets; advice on the supporting policies and processes required on becoming an IDNO together with modelling the range of financial outcomes.

**Phase 2:** We provided technical and commercial support during the licence application business set-up.



www.energypeople.co.uk

### Our people



### Socky Maila Managing Director

Socky is an executive and chartered electrical power engineer with a strong background in power system design and distribution network planning. He has a proven track record of delivering high-profile projects in the renewable business and the power sector at large. His experience comes from the utilities sector working for various energy regulatory authorities, distribution network operators, independent distribution network operators, independent connections providers, private network operators, donor organisations and governments, both in the UK and overseas.

E: socky.maila@energypeople.co.uk T: +44 (0)1206 233193 M: +44 (0)7557 665437

### **Bill Slegg** Power Engineering Specialist

Bill has led advisory projects throughout the world for utilities, regulators and donor organisations and is an experienced Chartered Engineer, executive and consultant in the energy sector. Formerly a member of the leadership team responsible for running a major UK electricity distribution company, Managing Director of British Power International from 1999 until 2011, Managing Director at energypeople from 2011 to 2016 and he is now Non-Executive Director and Adviser to energypeople. As Network Operations Manager at Eastern Electricity, Bill was responsible for the control and operation of the largest distribution network in the UK, supplying over 3 million customers through 86,000km of network.

#### E: bill.slegg@energypeople.co.uk T: +44 (0)1206 233193 M: +44 (0)7718 976400





### **Eric Chia** Technical Director

Eric is energypeople's Technical Director. A very well qualified and experienced Chartered Engineer, Eric has extensive electrical design experience and a good understanding of developments in the sector. With a first class honours degree in Electrical and Electronics Engineering and Masters in Electrical Engineering, Eric has broad experience on major projects working as a contractor, consultant and owner's engineer. He leads our technical work at a time when the company is expanding its offering to DNOs, IDNOs, ICPs and service providers. As part of our diversification programme, Eric has been leading our 400 kV projects – FEED and concept design and preparing layouts for National Grid substations upgrade to facilitate new generation connections.

E: eric.chia@energypeople.co.uk T: +44 (0)1206 233193 M: +44 (0)7483 419902



### **Glen Chapman** Finance Specialist

Glen is an experienced manager, consultant and finance specialist with a career spanning some thirty years in the energy sector. He's a qualified Accountant who has held a number of senior finance positions within a major power company. Glen is experienced in M and A activity, business analysis, business strategy, internal consultancy, project appraisal, financial modelling and financial analysis. In the UK, Glen has an in-depth understanding of the commercial arrangements underpinning the electricity supply industry. He has broad international experience, having worked in Asia, Africa, Europe and the USA.

E: glen.chapman@energypeople.co.uk T: +44 (0)1206 233193 M: +44 (0)7710 980473

### Josh McAvoy Lead Design Engineer

Josh leads energypeople's work in support of one of our DNO customers, focussed on demand led and generation connections, from LV up to and including 132 kV. He has an MSc (with distinction) in electrical power engineering from the University of Newcastle; he is a member of the IET and has gained experience with energypeople working in the Middle East. Josh is also involved in providing protection design services for a number of our customers, for networks from LV up to and including 132 kV. As part of our commitment to building a sustainable business, Josh is leading a team of other younger professional engineers who are being developed to secure the future of our company.

#### E: josh.mcavoy@energypeople.co.uk T: +44 (0)1206 233193 M: +44(0)7557 667118





### Marco da Fonseca Lead Design Engineer

Marco joined energypeople in 2016 as an Electrical Design Engineer from UK Power Networks (UKPN) where he worked as a Network Development Engineer from 2012-2014. He has an MSc from The Faculdade de Ciências e Tecnologia Nova University, Lisbon, and has since then Marco has gained experience in undertaking reviews of strategic network design standards, power systems and fault level studies and overhead line capacity enhancements; in Oman he has conducted a technical audit of regulatory reporting in a distribution and supply company. An experienced designer, Marco is leading a team of Electrical Design Engineers providing technical support to Design and Commercial teams for one of our DNO customers, dealing with requests for generation and demand connections to the network, as well as diversions, service alterations, etc., from LV up to and including 132 kV.

E: marco.dafonseca@energypeople.co.uk T: +44 (0)1206 233193 M: +44(0)7554 433452

### **Ged Barrett** Business Development Manager

Ged is an engineer, manager and consultant in the energy sector covering project delivery, operations and business development in the UK and internationally. After an early career in aerospace as an engineer and then training specialist, Ged joined British Power International as a Project Delivery Manager, progressing through a number of roles to become Regional Operations Manager. He was Business Development Manager at TNEI from 2012 to 2018. In addition to his expertise in business development, Ged also has international project experience having worked on power sector projects in India, Nepal and the Middle East.

#### E: ged.barrett@energypeople.co.uk T: +44 (0)151 3056892 M: +44 (0)7377 353907





### Robert Kemp Power Engineering and HS&E Specialist

Robert has extensive experience in creating and managing high-performing teams engaged in planning, building and maintaining complex electricity networks. He has unrivalled skills successfully creating value through good engineering design and effective asset management. Robert's knowledge comes from working as Head of System Development at UKPN (formerly EDF Energy Networks), as Head of Customer Operations, East of England South and a range of earlier engineering management roles. Robert is also an accredited safety manager and acts in this capacity for energypeople, both internally and as an adviser to others.

E: robert.kemp@energypeople.co.uk T: +44 (0)1206 233193 M: +44 (0)7377 353908





### Innovative design and advisory solutions for the power sector

#### energypeople

Lodge Park Business Centre Lodge Lane, Langham Colchester, CO4 5NE +44 (0)1206 233193

@ info@energypeople.co.uk

Swww.energypeople.co.uk

- in linkedin.com/company/energypeople
- Stwitter.com/energypeopleuk



